Test Report
Aggregate Particle Shape

Project Name	Improvements of roads for layout where the Cauvery and UGD works are in progress in Ward No.05 and Ward No.06 Byatarayanapura Sub Division
Client	Executive Engineer Project Yellahanka Division
Job No	MCTPL/BBMP/Project Division Yelahanka ZONE /P-7/1/2017-2018
Mix Type	Wet Mix Macadam
Contractor	Sri. R. Satheesh
Test Method	IS : 2386 (Part - 1) 1963 & Specification for Road & Bridge Works, MORT&H, Rev. V.
Location	At site
Material	Coarse Aggregates
Sample No	3
Date	24-Mar-2018

I.S. Sieves Size		Weight of Retained Sample on Each Sieve (minimum 200 Pieces) (gm)	Flakiness Index		Elongation Index	
Passing through IS Sieves (mm)	Retained on IS Sieves (mm)		Thickness Gauge	Weight of Aggregates in each fraction passing on thickness gauges (gm)	Length Gauge	Weight of Aggregates in Fraction retained on length gauges (gm)
63	50	0	33.9	0	-	0
50	40	0	27	0	81	0
40	25	22	19.5	0	58.5	0
31.5	25	32	16.95	0	-	0
25	20	1555	13.5	235	40.5	253
20	16	1425	14.5	104	41.5	131
16	12.5	924	15.5	119	42.5	126
12.5	10	455	16.5	57	43.5	63
10	6.3	255	17.5	77	44.5	84
	SW	4668	SWf	592	SWe	657

Flakiness Index 12.68 %
Elongation Index 14.07 %
Combined Flakiness and Elongation Indices : 26.76 %

Comments: Maximum allowable Combined Flakiness and Elongation Indices for WMM is 35%

Note:

i. The results indicated above are based on the tests carried out on the sample at site.
ii. The results relate only to the items tested.
iii. This test report should not be reproduced except in full, without written approval of this laboratory.
iv. Any query regarding the report must be reported immediately.

Mecadez Core Technologies Pvt Ltd

Authorised Signature

Asst. Executive Engineer
Project Division
Yelahanka Zone
Bangalore

Test Report
Aggregate Particle Shape

Project Name	Improvements of roads for layout where the Cauvery and UGD works are in progress in Ward No.05 and Ward No.06 Byatarayanapura Sub Division
Client	Executive Engineer Project Yellahanka Division
Job No	MCTPL/BBMP/Project Division Yelahanka ZONE /P-7/1/2017-2018
Mix Type	Wet Mix Macadam
Contractor	Sri. R. Satheesh
Test Method	IS : 2386 (Part - 1) 1963 & Specification for Road & Bridge Works, MORT&H, Rev. V.
Location	At site
Material	Coarse Aggregates
Sample No	4
Date	28-Mar-2018

I.S. Sieves Size		Weight of Retained Sample on Each Sieve (minimum 200 Pieces) (gm)	Flakiness Index		Elongation Index	
Passing through IS Sieves (mm)	Retained on IS Sieves (mm)		Thickness Gauge	Weight of Aggregates in each fraction passing on thickness gauges (gm)	Length Gauge	Weight of Aggregates in Fraction retained on length gauges (gm)
63	50	0	33.9	0	-	0
50	40	0	27	0	81	0
40	25	27	19.5	0	58.5	0
31.5	25	37	16.95	0	-	0
25	20	1525	13.5	205	40.5	223
20	16	1420	10.8	99	32.4	126
16	12.5	935	8.55	130	25.6	137
12.5	10	440	6.75	42	20.2	48
10	6.3	260	4.89	82	14.7	89
	SW	4644	SWf	558	SWe	623

Flakiness Index 12.02 %

Elongation Index 13.42 %

Combined Flakiness and Elongation Indices : 25.43 %

Comments: Maximum allowable Combined Flakiness and Elongation Indices for WMM is 35%

Note:

i. The results indicated above are based on the tests carried out on the sample at site.

ii. The results relate only to the items tested.

iii. This test report should not be reproduced except in full, without written approval of this laboratory.

iv. Any query regarding the report must be reported immediately.

Mecadez Core Technologies Pvt Ltd

Shosha

Authorised Signature

Asst. Executive Engineer
Project Division
Yelahanka Zone
Bangalore

Test Report
Aggregate Particle Shape

Project Name	Improvements of roads for layout where the Cauvery and UGD works are in progress in Ward No.05 and Ward No.06 Byatarayanapura Sub Division
Client	Executive Engineer Project Yellahanka Division
Job No	MCTPL/BBMP/Project Division Yelahanka ZONE /P-7/1/2017-2018
Mix Type	Wet Mix Macadam
Contractor	Sri. R. Satheesh
Test Method	IS : 2386 (Part - 1) 1963 & Specification for Road & Bridge Works, MORT&H, Rev. V.
Location	At site
Material	Coarse Aggregates
Sample No	5
Date	1-Apr-2018

I.S. Sieves Size		Weight of Retained Sample on Each Sieve (minimum 200 Pieces) (gm)	Flakiness Index		Elongation Index	
Passing through IS Sieves (mm)	Retained on IS Sieves (mm)		Thickness Gauge	Weight of Aggregates in each fraction passing on thickness gauges (gm)	Length Gauge	Weight of Aggregates in Fraction retained on length gauges (gm)
63	50	0	33.9	0	-	0
50	40	0	27	0	81	0
40	25	25	19.5	0	58.5	0
31.5	25	35	16.95	0	-	0
25	20	1565	13.5	245	40.5	263
20	16	1430	10.8	109	32.4	136
16	12.5	925	8.55	120	25.6	127
12.5	10	435	6.75	37	20.2	43
10	6.3	255	4.89	77	14.7	84
	SW	4670	SWf	588	SWe	653

Flakiness Index 12.59 %
Elongation Index 13.98 %
Combined Flakiness and Elongation Indices : 26.57 %

Comments: Maximum allowable Combined Flakiness and Elongation Indices for WMM is 35%

Note:

i. The results indicated above are based on the tests carried out on the sample at site.
ii. The results relate only to the items tested.
iii. This test report should not be reproduced except in full, without written approval of this laboratory.
iv. Any query regarding the report must be reported immediately.

Mecadez Core Technologies Pvt Ltd

Authorised Signature

Asst. Executive Engineer
Project Division
Yelahanka Zone
Bangalore

Test Report
Aggregate Gradation

Project Name	Improvements of roads for layout where the Cauvery and UGD works are in progress in Ward No.05 and Ward No.06 Byatarayanapura Sub Division
Client	Executive Engineer Project Yellahanka Division
Job No	MCTPL/BBMP/Project Division Yelahanka ZONE /P-7/1/2017-2018
Mix Type	Wet Mix Macadam
Contractor	Sri. R. Satheesh
Test Method	IS : 2386 (Part - 1) 1963 & Specification for Road & Bridge Works, MORT&H, Rev. V.
Location	Wet Mix Plant
Material	Coarse Aggregates
Sample No	4
Date	28-Mar-2018

Weight of Sample: 4000 gms

Sl. No.	I.S. Sieve size (mm)	Weight Retained (gm)	Percentage of weight Retained (%)	Cumulative Percentage of weight retained (%)	Cumulative % of Passing		Remarks
					Test Result	Gradation Limits as per MORT&H	
1	53	0	0	0	100	100	Gradation satisfies the MORT&H Specification for Wet Mix macadam
2	45	108.5	2.71	2.71	97.29	95-100	
3	22.4	1105.5	27.64	30.35	69.65	60-80	
4	11.2	806.5	20.16	50.51	49.49	40-60	
5	4.75	713.5	17.84	68.35	31.65	25-40	
6	2.36	408.5	10.21	78.56	21.44	15-30	
7	0.06	305.5	7.64	86.2	13.8	(8-22)	
8	0.075	550	13.75	99.95	0.05	0-5	

Note:

i. The results indicated above are based on the tests carried out on the sample at site.

ii. The results relate only to the items tested.

iii. This test report should not be reproduced except in full, without written approval of this laboratory.

iv. Any query regarding the report must be reported immediately.

Mecadez Core Technologies Pvt Ltd

Authorised Signature

Asst. Executive Engineer
Project Division
Yelahanka Zone
Bangalore

Test Report
Aggregate Gradation

Project Name	Improvements of roads for layout where the Cauvery and UGD works are in progress in Ward No.05 and Ward No.06 Byatarayanapura Sub Division
Client	Executive Engineer Project Yellahanka Division
Job No	MCTPL/BBMP/Project Division Yelahanka ZONE /P-7/1/2017-2018
Mix Type	Wet Mix Macadam
Contractor	Sri. R. Satheesh
Test Method	IS : 2386 (Part - 1) 1963 & Specification for Road & Bridge Works, MORT&H, Rev. V.
Location	Wet Mix Plant
Material	Coarse Aggregates
Sample No	5
Date	28-Mar-2018

Weight of Sample: 4000 gms

Sl. No.	I.S. Sieve size (mm)	Weight Retained (gm)	Percentage of weight Retained (%)	Cumulative Percentage of weight retained (%)	Cumulative % of Passing		Remarks
					Test Result	Gradation Limits as per MORT&H	
1	53	0	0	0	100	100	Gradation satisfies the MORT&H Specification for Wet Mix macadam
2	45	110	2.75	2.75	97.25	95-100	
3	22.4	1107	27.68	30.43	69.57	60-80	
4	11.2	808	20.2	50.63	49.37	40-60	
5	4.75	715	17.88	68.51	31.49	25-40	
6	2.36	410	10.25	78.76	21.24	15-30	
7	0.06	307	7.68	86.44	13.56	(8-22)	
8	0.075	400	10	96.44	3.56	0-5	

Note:

i. The results indicated above are based on the tests carried out on the sample at site.

ii. The results relate only to the items tested.

iii. This test report should not be reproduced except in full, without written approval of this laboratory.

iv. Any query regarding the report must be reported immediately.

Mecadez Core Technologies Pvt Ltd

Authorised Signature

Asst. Executive Engineer
Project Division
Yelahanka Zone
Bangalore

Test Report
Aggregate Gradation

Project Name	Improvements of roads for layout where the Cauvery and UGD works are in progress in Ward No.05 and Ward No.06 Byatarayanapura Sub Division
Client	Executive Engineer Project Yellahanka Division
Job No	MCTPL/BBMP/Project Division Yelahanka ZONE /P-7/1/2017-2018
Mix Type	Wet Mix Macadam
Contractor	Sri. R. Satheesh
Test Method	IS : 2386 (Part - 1) 1963 & Specification for Road & Bridge Works, MORT&H, Rev. V.
Location	Wet Mix Plant
Material	Coarse Aggregates
Sample No	6
Date	28-Mar-2018

Weight of Sample: 4000 gms

Sl. No.	I.S. Sieve size (mm)	Weight Retained (gm)	Percentage of weight Retained (%)	Cumulative Percentage of weight retained (%)	Cumulative % of Passing		Remarks
					Test Result	Gradation Limits as per MORT&H	
1	53	0	0	0	100	100	Gradation satisfies the MORT&H Specification for Wet Mix macadam
2	45	111.5	2.79	2.79	97.21	95-100	
3	22.4	1108.5	27.71	30.5	69.5	60-80	
4	11.2	809.5	20.24	50.74	49.26	40-60	
5	4.75	716.5	17.91	68.65	31.35	25-40	
6	2.36	411.5	10.29	78.94	21.06	15-30	
7	0.06	308.5	7.71	86.65	13.35	(8-22)	
8	0.075	401.5	10.04	96.69	3.31	0-5	

Note:

i. The results indicated above are based on the tests carried out on the sample at site.

ii. The results relate only to the items tested.

iii. This test report should not be reproduced except in full, without written approval of this laboratory.

iv. Any query regarding the report must be reported immediately.

Mecadez Core Technologies Pvt Ltd

Authorised Signatory

Asst. Executive Engineer
Project Division
Yelahanka Zone
Bangalore

Test Report
Aggregate Gradation

Project Name	Improvements of roads for layout where the Cauvery and UGD works are in progress in Ward No.05 and Ward No.06 Byatarayanapura Sub Division
Client	Executive Engineer Project Yellahanka Division
Job No	MCTPL/BBMP/Project Division Yelahanka ZONE /P-7/1/2017-2018
Mix Type	Wet Mix Macadam
Contractor	Sri. R. Satheesh
Test Method	IS : 2386 (Part - 1) 1963 & Specification for Road & Bridge Works, MORT&H, Rev. V.
Location	Wet Mix Plant
Material	Coarse Aggregates
Sample No	7
Date	1-Apr-2018

Weight of Sample: 4000 gms

Sl. No.	I.S. Sieve size (mm)	Weight Retained (gm)	Percentage of weight Retained (%)	Cumulative Percentage of weight retained (%)	Cumulative % of Passing		Remarks
					Test Result	Gradation Limits as per MORT&H	
1	53	0	0	0	100	100	Gradation satisfies the MORT&H Specification for Wet Mix macadam
2	45	109.5	2.74	2.74	97.26	95-100	
3	22.4	1106.5	27.66	30.4	69.6	60-80	
4	11.2	807.5	20.19	50.59	49.41	40-60	
5	4.75	714.5	17.86	68.45	31.55	25-40	
6	2.36	409.5	10.24	78.69	21.31	15-30	
7	0.06	306.5	7.66	86.35	13.65	(8-22)	
8	0.075	399.5	9.99	96.34	3.66	0-5	

Note:

i. The results indicated above are based on the tests carried out on the sample at site.

ii. The results relate only to the items tested.

iii. This test report should not be reproduced except in full, without written approval of this laboratory.

iv. Any query regarding the report must be reported immediately.

Mecadez Core Technologies Pvt Ltd

Authorised Signature

Asst. Executive Engineer
Project Division
Yelahanka Zone
Bangalore

Test Report
Aggregate Gradation

Project Name	Improvements of roads for layout where the Cauvery and UGD works are in progress in Ward No.05 and Ward No.06 Byatarayanapura Sub Division
Client	Executive Engineer Project Yellahanka Division
Job No	MCTPL/BBMP/Project Division Yelahanka ZONE /P-7/1/2017-2018
Mix Type	Wet Mix Macadam
Contractor	Sri. R. Satheesh
Test Method	IS : 2386 (Part - 1) 1963 & Specification for Road & Bridge Works, MORT&H, Rev. V.
Location	Wet Mix Plant
Material	Coarse Aggregates
Sample No	8
Date	1-Apr-2018

Weight of Sample: 4000 gms

Sl. No.	I.S. Sieve size (mm)	Weight Retained (gm)	Percentage of weight Retained (%)	Cumulative Percentage of weight retained (%)	Cumulative % of Passing		Remarks
					Test Result	Gradation Limits as per MORT&H	
1	53	0	0	0	100	100	Gradation satisfies the MORT&H Specification for Wet Mix macadam
2	45	111	2.78	2.78	97.22	95-100	
3	22.4	1040	26	28.78	71.22	60-80	
4	11.2	809	20.23	49.01	50.99	40-60	
5	4.75	716	17.9	66.91	33.09	25-40	
6	2.36	411	10.28	77.19	22.81	15-30	
7	0.06	308	7.7	84.89	15.11	(8-22)	
8	0.075	401	10.03	94.92	5.08	0-5	

Note:

i. The results indicated above are based on the tests carried out on the sample at site.

ii. The results relate only to the items tested.

iii. This test report should not be reproduced except in full, without written approval of this laboratory.

iv. Any query regarding the report must be reported immediately.

Mecadez Core Technologies Pvt Ltd

Authorised Signature

Asst. Executive Engineer
Project Division
Yelahanka Zone
Bangalore

Test Report
Aggregate Gradation

Project Name	Improvements of roads for layout where the Cauvery and UGD works are in progress in Ward No.05 and Ward No.06 Byatarayanapura Sub Division
Client	Executive Engineer Project Yellahanka Division
Job No	MCTPL/BBMP/Project Division Yelahanka ZONE /P-7/1/2017-2018
Mix Type	Wet Mix Macadam
Contractor	Sri. R. Satheesh
Test Method	IS : 2386 (Part - 1) 1963 & Specification for Road & Bridge Works, MORT&H, Rev. V.
Location	Wet Mix Plant
Material	Coarse Aggregates
Sample No	9
Date	1-Apr-2018

Weight of Sample: 4000 gms

Sl. No.	I.S. Sieve size (mm)	Weight Retained (gm)	Percentage of weight Retained (%)	Cumulative Percentage of weight retained (%)	Cumulative % of Passing		Remarks
					Test Result	Gradation Limits as per MORT&H	
1	53	0	0	0	100	100	Gradation satisfies the MORT&H Specification for Wet Mix macadam
2	45	112.5	2.81	2.81	97.19	95-100	
3	22.4	1050	26.25	29.06	70.94	60-80	
4	11.2	810.5	20.26	49.32	50.68	40-60	
5	4.75	717.5	17.94	67.26	32.74	25-40	
6	2.36	412.5	10.31	77.57	22.43	15-30	
7	0.06	309.5	7.74	85.31	14.69	(8-22)	
8	0.075	402.5	10.06	95.37	4.63	0-5	

Note:

i. The results indicated above are based on the tests carried out on the sample at site.

ii. The results relate only to the items tested.

iii. This test report should not be reproduced except in full, without written approval of this laboratory.

iv. Any query regarding the report must be reported immediately.

Mecadez Core Technologies Pvt Ltd.

Authorised Signatory

Asst. Executive Engineer
Project Division
Yelahanka Zone
Bangalore

Test Report
Aggregate Gradation

Project Name	Improvements of roads for layout where the Cauvery and UGD works are in progress in Ward No.05 and Ward No.06 Byatarayanapura Sub Division
Client	Executive Engineer Project Yellahanka Division
Job No	MCTPL/BBMP/Project Division Yelahanka ZONE /P-7/1/2017-2018
Mix Type	Wet Mix Macadam
Contractor	Sri. R. Satheesh
Test Method	IS : 2386 (Part - 1) 1963 & Specification for Road & Bridge Works, MORT&H, Rev. V.
Location	Wet Mix Plant
Material	Coarse Aggregates
Sample No	10
Date	1-Apr-2018

Weight of Sample: 4000 gms

Sl. No.	I.S. Sieve size (mm)	Weight Retained (gm)	Percentage of weight Retained (%)	Cumulative Percentage of weight retained (%)	Cumulative % of Passing		Remarks
					Test Result	Gradation Limits as per MORT&H	
1	53	0	0	0	100	100	Gradation satisfies the MORT&H Specification for Wet Mix macadam
2	45	114	2.85	2.85	97.15	95-100	
3	22.4	1051.5	26.29	29.14	70.86	60-80	
4	11.2	812	20.3	49.44	50.56	40-60	
5	4.75	719	17.98	67.42	32.58	25-40	
6	2.36	414	10.35	77.77	22.23	15-30	
7	0.06	311	7.78	85.55	14.45	(8-22)	
8	0.075	404	10.1	95.65	4.35	0-5	

Note:

i. The results indicated above are based on the tests carried out on the sample at site.

ii. The results relate only to the items tested.

iii. This test report should not be reproduced except in full, without written approval of this laboratory.

iv. Any query regarding the report must be reported immediately.

Mecadez Core Technologies Pvt Ltd

Authorised Signature

Asst. Executive Engineer
Project Division
Yelahanka Zone
Bangalore